

WHAT IS CLAIMED IS:

**CLAIMS**

1. A jet propulsion system for use on an aircraft, said jet propulsion system comprising:

a jet engine producing thrust for the aircraft, said jet engine emitting an exhaust;

a storage tank holding an oxidizing material; and

an afterburner shroud conforming to an outer surface of said jet engine;

means for mixing the oxidizing material and fuel into a combustible mixture;

said afterburner shroud injecting the combustible mixture into the exhaust, whereby the exhaust ignites the mixture, thereby creating an additional thrust for said jet engine.

2. The jet propulsion system of claim 1, wherein said jet engine is a turbojet engine.

3. The jet propulsion system of claim 1, wherein said jet engine is a turbofan engine.

4. The jet propulsion system of claim 1 wherein the oxidizing material is liquid oxygen.

5. The jet propulsion system of claim 1 wherein said afterburner shroud is retractable from a forward position when not in use to a rearward position during use of said afterburner shroud.

6. The jet propulsion system of claim 5 wherein said afterburner shroud extends beyond an exhaust end of the jet engine during operation of the afterburner shroud.

7. The jet propulsion system of claim 5 wherein said afterburner shroud is attached to said jet engine by a plurality of moveable support arms.

8. The jet propulsion system of claim 7 wherein the support arms are pivotable.

9. The jet propulsion system of claim 7 wherein the support arms are conduits providing passage of the oxidizing material and fuel to said afterburner shroud.

10. The jet propulsion system of claim 1 wherein said means for mixing is a mixing ring circumferentially aligned within said afterburner shroud.

11. The jet propulsion system of claim 10 wherein the mixing ring includes a plurality of injectors for injecting fuel and the oxidizing material into the exhaust of said jet engine.

12. The jet propulsion system of claim 10 wherein:  
said afterburner shroud is affixed to said jet engine by a plurality of support arms; and  
the plurality of support arms feed fuel and the oxidizing material to the mixing ring.

13. The jet propulsion system of claim 1 wherein the storage tank conforms to at least a portion of an outer surface of the jet engine.

14. An afterburner shroud for use on a jet engine, said afterburner shroud comprising:

a shroud circumferential shaped and positioned over a portion of the jet engine;

means for mixing a oxidizing material and fuel to form a combustible mixture; and

injecting means for injecting the combustible material into the exhaust created by the jet engine;

whereby the combustible material is ignited by the exhaust and provides an additional thrust to the jet engine.

15. The afterburner shroud of claim 14 wherein said shroud is affixed to a portion of an outer surface of the jet engine by a plurality of support arms.

16. The afterburner shroud of claim 15 wherein the shroud is retractable and the support arms move to extend the shroud rearward toward the exhaust during operation of the afterburner shroud.

17. The afterburner shroud of claim 14 wherein the mixing means is a mixing ring circumferentially aligned within the shroud.

18. The afterburner shroud of claim 17 wherein the injecting means is a plurality of injectors attached to the mixing ring.

19. The afterburner shroud of claim 14 wherein the oxidizing material is liquid oxygen.

20. A jet propulsion system for use on an aircraft, said jet propulsion system comprising:

- a jet engine producing thrust for the aircraft, the jet engine emitting an exhaust;

- a storage tank conforming to a portion of an outer surface of said jet engine, said storage tank holding liquid oxygen;

- an afterburner shroud conforming to an outer surface of said jet engine, said afterburner shroud being affixed by a plurality of moveable support arms and wherein said afterburner shroud is retractable, said afterburner shroud being extended rearward toward the exhaust of the jet engine during operation of the afterburner shroud; and

- a mixing ring positioned within said afterburner shroud for mixing the liquid oxygen and fuel into a combustible mixture;

- said afterburner injecting the combustible mixture into the exhaust, whereby the exhaust ignites the mixture, thereby creating an additional thrust for said jet engine.